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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,752	11/13/2003	Lewis B. Aronson	9775-0208-999	1626
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MORGAN, LEWIS & BOCKIUS, LLP. 2 PALO ALTO SQUARE 3000 EL CAMINO REAL PALO ALTO, CA 94306			EXAMINER LEUNG, CHRISTINA Y	
			ART UNIT 2633	PAPER NUMBER

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/713,752	ARONSON ET AL.	
	Examiner	Art Unit	
	Christina Y. Leung	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☒ Claim(s) 2 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11-13-03, 2-11-04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 2 and 18 are objected to because of the following informalities:

Claims 2 and 18 each recite the phrase “from analog and digital” (sic) in the second line of the claims. Examiner respectfully suggests that Applicants amend this phrase to “from analog to digital” in both claims for grammatical reasons. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 20 and 21 each recite the limitation “the operation disable circuitry” in the first line of the claims. There is insufficient antecedent basis for this limitation in the claim, since claim 16 on which they both depend does not previously recite operation disable circuitry. Examiner respectfully suggests that claims 20 and 21 may depend on claim 17 instead.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over King et al. (US 5,812,572 A) in view of Stephenson (US 2002/0027688 A1).

Regarding claim 16, King et al. disclose a fiber optic device with safety features (Figure 1), comprising:

a laser transmitter 36;

a controller (including microcontroller 50 and other circuitry), wherein the controller comprises:

a memory (PROM, RAM, and EEPROM in microcontroller 50), including one or more memory arrays, configured to store a digital equivalent of a predetermined low setpoint and a digital equivalent of a predetermined high setpoint in a memory within a fiber optic device (King et al. discloses high and low power out of range thresholds, for example; column 14, lines 43-48);

communication circuitry configured to receive an input signal associated with operation of the fiber optic device (such as the circuitry receiving input signals from temperature sensor 56 or average power monitor shown in Figure 1 but not numerically labeled, etc.);

comparison logic configured to compare the input signal to the digital equivalent of the predetermined low setpoint and to the digital equivalent of the predetermined high setpoint and to generate an alarm flag if the input signal conflicts with either the digital equivalent of the predetermined low setpoint or the digital equivalent of the predetermined high setpoint (King et al. disclose comparing an input from the power monitor with the high and low power thresholds, for example; column 16, lines 14-20).

Although King et al. also disclose a photodiode receiver 40, the receiver 40 receives a signal fed back from the transmitter; they do not specifically disclose a photodiode receiver together with the disclosed laser transmitter in a “transceiver” context (wherein the receiver would receive signals sent from an opposing communication device).

However, bidirectional optical communication using a transmitter and a receiver at both ends is well known in the art. Stephenson in particular teaches an optical communications system (Figures 2-4), including a laser transmitter 110 such as already disclosed by King et al., and further including a photodiode receiver 134 associated with that transmitter to provide a transceiver. It would have been obvious to a person of ordinary skill in the art to further include a receiver as taught by Stephenson in the system disclosed by King et al. in order to enable bidirectional communications between two locations.

Regarding claim 17, King et al. further disclose operation disable circuitry configured to disable operation of the optoelectronic device in response to a signal, wherein the signal is based on the alarm flag (column 16, lines 36-38).

King et al. do not explicitly label a part of their circuit as “operation disable circuitry,” but they clearly disclose circuitry that controls the optoelectronic device (such as modulation control adjust 24 and bias control 30) and also disclose that the system may disable the device. It would be well understood in the art that King et al. inherently disclose that the circuitry for controlling the device is inherently configured to disable the device if desired.

operation disable circuitry

Regarding claim 18, King et al. further disclose conversion circuitry (analog-to-digital converter 52) for converting the input signal from analog to digital. They do not specifically

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disclose that the digital input signal is a 16-bit number. Similarly, regarding claim 19, they do not specifically disclose that the digital equivalents (of the setpoints) are 16-bit numbers. However, it is well known in the art that digital input signals and digital setpoints stored in memory may be 16-bit numbers; 8-, 12-, or 16-bit digital values are all commonly known types of digital values used in processing elements such as already disclosed by King et al. Regarding claims 18 and 19, it would have been obvious to a person of ordinary skill in the art to specifically use 16-bit digital values in the system suggested by King et al. in view of Stephenson as an engineering design choice of a length for the digital values depending on the input/output specifications of the processing elements. The claimed differences exist not as a result of an attempt by Applicants to solve an unknown problem but merely amount to the selection of expedients known as design choices to one of ordinary skill in the art.

Regarding claim 20, as well as it may be understood with respect to 35 U.S.C. 112 discussed above, King et al. disclose that the disabling of the device is responsive to a software operation (column 16, lines 36-38).

Regarding claim 21, as well as it may be understood with respect to 35 U.S.C. 112 discussed above, King et al. in view of Stephenson describe a system as discussed above with regard to claim 16. King et al. does not specifically disclose a disable pin in the transceiver. However, Stephenson further teaches that an optoelectronic transceiver may include a disable pin 115 (Figure 4).

King et al. already inherently disclose that the circuitry for controlling the device is configured to disable the device if desired. It would have been obvious to a person of ordinary skill in the art to further include a disable pin as taught by Stephenson in the system described by

King et al. in view of Stephenson in order to provide a way to clearly cut off the transceiver and prevent the various feedback loops in the system from activating or controlling the transceiver in response to the loss of output (Stephenson, page 6, paragraph [0045]).

Regarding claim 22, King et al. disclose predetermined setpoints dependent on several types of operation conditions of the device, including setpoints dependent on a temperature of the device (column 14, lines 1-10 and lines 46-48).

### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. The following rejections in this section of the Office Action are provisional obviousness-type double patenting rejections because the conflicting claims have not in fact been patented.

9. Claims 1-7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 47-53 respectively of copending Application No. 10/266,869.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of the present application generally recites the same elements and limitations of the apparatus recited in claim 47 of '869, including a controller/circuit including memory, communication circuitry, comparison logic, an interface, and operation disable circuitry.

Claim 1 differs from claim 47 of '869 in that it further specifically recites a transmitter and receiver, but claim 65 of '917 already recites that the circuitry is for monitoring "a fiber optic transceiver." Laser transmitters and photodiode receivers are well known types of fiber optic transceivers. It would have been obvious to a person of ordinary skill in the art to specifically include a transmitter and a receiver as recited in claim 1 of the application to the circuit recited in claim 47 of '869 to specifically use the circuit to control those known transceiver elements. Therefore, claim 1 is rejected over claim 47 of '869 under obvious-type double patenting.

Claims 2-7 of the present application, which depend on claim 1, recite the same elements and limitations as claims 48-52 of '869, which depend on claim 47 in that application. Therefore, claims 2-7 are also rejected over claims 48-52 of '869 under obvious-type double patenting for the reasons given for the parent claim.



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10. Claims 8-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 69, 70, and 32-37 respectively of copending Application No. 10/266,869.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 8 of the present application generally recites the same elements and limitations of the apparatus recited in claim 69 of '869, including a controller/circuit including memory configured to store first, second, and third sets of digital equivalents of predetermined setpoints, communication circuitry, and comparison logic.

Claim 8 differs from claim 69 of '869 in that it further specifically recites a transmitter and receiver, but claim 69 of '917 already recites that the circuitry is for monitoring "a fiber optic transceiver." Laser transmitters and photodiode receivers are well known types of fiber optic transceivers. It would have been obvious to a person of ordinary skill in the art to specifically include a transmitter and a receiver as recited in claim 8 of the application to the circuit recited in claim 69 of '869 to specifically use the circuit to control those known transceiver elements. Therefore, claim 8 is rejected over claim 69 of '869 under obvious-type double patenting.

Claims 9-15 of the present application, which depend on claim 8, recite the same elements and limitations as claims 70 and 32-37 respectively of '869, which depend on claim 69 in that application. Therefore, claims 9-15 are also rejected over claims 70 and 32-37 of '869 under obvious-type double patenting for the reasons given for the parent claim.

11. Claims 16-22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 71-77 respectively of copending Application No. 10/266,869.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 16 of the present application generally recites the same elements and limitations of the apparatus recited in claim 71 of '869, including a controller/circuit including memory configured to store digital equivalents of predetermined low and high setpoints, communication circuitry, and comparison logic.

Claim 16 differs from claim 71 of '869 in that it further specifically recites a transmitter and receiver, but claim 71 of '917 already recites that the circuitry is for monitoring "a fiber optic transceiver." Laser transmitters and photodiode receivers are well known types of fiber optic transceivers. It would have been obvious to a person of ordinary skill in the art to specifically include a transmitter and a receiver as recited in claim 16 of the application to the circuit recited in claim 71 of '869 to specifically use the circuit to control those known transceiver elements. Therefore, claim 16 is rejected over claim 71 of '869 under obvious-type double patenting.

Claims 17-22 of the present application, which depend on claim 16, recite the same elements and limitations as claims 72-77 respectively of '869, which depend on claim 71 in that application. Therefore, claims 17-22 are also rejected over claims 72-77 of '869 under obvious-type double patenting for the reasons given for the parent claim.

*Allowable Subject Matter*

12. Claims 1-15 contain allowable subject matter. However, all claims are rejected under obvious-type double patenting as discussed above, and no claims are currently allowed.

13. The following is a statement of reasons for the indication of allowable subject matter:

The prior art, including King et al., does not specifically disclose or fairly teach a system including all the limitations, elements, and/or steps recited in claims 1 and 8.

King et al. generally disclose a circuit for controlling an optoelectronic device (Figure 1) including memory 50, analog to digital conversion circuitry 52, and control circuitry (such as modulation current adjust element 24), and further disclose monitoring power level values and temperature values by way of making a comparison between inputs and predetermined setpoint values (column 16, lines 24-38). They also generally disclose a host interface (serial port 26). However, they do not specifically further suggest comparison logic for comparing the digital values corresponding to operating conditions of the device with setpoint values in order to specifically generate flag values, wherein the flag values are specifically stored in predefined locations within the memory during operation of the optoelectronic device and wherein an interface allows a host to directly read from and write to those predefined flag storage locations in memory.

King et al. also do not specifically disclose or fairly suggest a controller in a fiber optic transceiver with the specific combination of elements and limitations recited in claim 8, particularly wherein a memory stores first, second, and third sets of digital equivalents of a plurality of predetermined setpoints corresponding to bias current, output power, and receiver

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output power; and comparison logic for comparing bias current, output power, and received output power to the sets of digital equivalents.

*Conclusion*

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina Y. Leung whose telephone number is 571-272-3023. The examiner can normally be reached on Monday to Friday, 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571-272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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